The Effects of Leadership Styles on Organizational Health

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This article examines the effects of the leadership style of the principal, "transformational leadership and transactional leadership", along with teachers' job satisfaction on schools' organizational health. Specifically speaking, it investigates to what extent the variations in school health can be related to the principal's leadership style and teachers' job satisfaction. To this end, a Likert-type questionnaire was administered to 635 teachers working in Turkish schools out of a 875-person sample. Path Analysis was used to explain the direct and indirect relationships between the dependent and independent variables. As a result of the analysis, the most striking finding is that transformational leadership has a profound impact on teachers' job satisfaction, while the transformational leadership of the principal directly and, through teachers' job satisfaction, indirectly affects the school health.

After the establishment of the Turkish Republic on 29 October 1923, the Unification of Education (Act 430) was enacted on 3 March 1924. Following approval of this act all educational institutes were affiliated to the Ministry of Education for the administration of educational activities from a single center. As a result of this restructuring the Turkish Educational system assumed its current structure.

In 1997, the five year primary education, the first step of the general education system, was merged with the three year secondary education, increasing the period of compulsory education to eight years. Within this process these schools, now named primary schools, largely solved their problems and established a more stable structure. However, high schools, which constitute the second phase of general education, had and are still having some problems. The General National Education Act 1739 of 1973 describes High schools as three year educational institutes

which give general, vocational and technical education. The high schools were redesigned as General high schools, Anatolian high schools, Vocational high schools, and Science high schools. Starting from the 2005- 2006 academic year high school education has been increased to four years. In 2004 -2005 there were 1,733,041 male and 1,306,408 female students (totaling of 3,039,449) in 6861 high schools throughout the country. The total number of teachers working in these schools was 167,949, being 86 thousand male and 81 thousand female teachers (National Educational Statistics, 2005).

The objectives of high schools are stated by law. One of these objectives is preparing students for higher education. The gruesome fact that out of the 1,500,000 candidates who entered the University entrance exam in 2005 nearly 60 thousand obtained zero points has forced researchers and the authorities in the Ministry of Education to focus on these schools. A comparison of the success rates of the students from general high schools and those from other types of high schools formed an interesting domain of research.

Undoubtedly a failure in converting the central system into a student centered system has played a significant role in this picture. In the present educational system the only authority involved in opening new schools, assigning new teachers and other academic personnel, preparation of the related curricula and meeting the financial needs of the schools is the Ministry of Education., the recent act Local Management Act, which aims to localize the educational system, has not been put into action yet. In spite these difficulties, the renovation studies of the educational system have accelerated in recent years. Among these the most important, starting from the 1998-1999 academic year, were are allowing high schools to define their own visions, initiating performance evaluation studies of the teachers, and, most importantly, seeking new approaches to the training of school administrators in the light of contemporary data. In addition of these, studies related to the job satisfaction of teachers have been the focus of many researchers; this study belongs to this area in

attempting to determine the job satisfaction levels of teachers.

For the reasons mentioned above, providing a healthy organizational structure for all high schools has become the aim of most researchers in the field. Researchers aiming at finding the causes of failure consider finance, school buildings and quantitative and qualitative inadequacies as separate variables. However, there are no studies related to the effects of teachers' job satisfaction and of the leadership styles of the principal upon the organizational health of the schools. The effects of job satisfaction and principal's leadership style have been studied individually (Balci, 1985; Pehlivan, 2000; Özdayi, 1991; Kabadayi, 1982) but studies related to their joint effects are non existent.

The studies carried out on teachers' job satisfaction in Turkey have revealed a very important fact. According to these studies, it was found that the job satisfaction of the teachers is very low due to factors such as under payment (Balci, 1985; Çelik, 1987), lack of sources (Koçak, 2002), inappropriate leadership styles of the principals (Kabadayi, 1982; Aliç, 1985) and stress in the job (Özday, 1990). These results indicate an immediate need to readdress this issue. Job satisfaction is a feeling of pleasure obtained by the evaluation of the job and the life in the job. The higher this pleasure is, the higher the degree of job satisfaction in individual (Basaran, 1982). Job satisfaction affects one's self confidence; it improves or decreases self confidence and lack of job satisfaction may cause a person to exhibit aggressive behavior towards others.

Another point which has an undoubted effect upon teachers' job satisfaction is the leadership style of the administrators of the school. Studies have revealed that the leadership styles exhibited by principals in school have a marked effect upon the job satisfaction of the staff (Howell and Avolio, 1993; Bogler, 2001)

The principal is the key person in creating an ideal school. The managerial knowledge and skills of the principal are of great importance for in-class educational development and they play a significant role in the overall success of the school (Anderson, 1991). In many respects, the principal is the most important and influential individual in the school. It is his or her leadership that shapes the school's learning climate, the level of the relationship between staff, and the teacher morale. If a school is open to innovation, it is able to build good relationships with its environment, can give better instruction, and its students can exhibit their skills. The leadership style of the principal can be considered the key to this success (Hoy & Sabo, 1998; Hoy & Miskel, 1991). One more important point to remember at this point is that the organizational health of the school is a medium through which this success can be realized.

The organizational health of a school is a useful structure used to depict the mutual individual relationships of teachers, directors, and students (Hoy, Tarter & Kottkamp's, 1991). It represents the psycho-social status of the school. As Miles (1969) has indicated, if identification precedes the application of a change, in what aspect a school needs change can easily be assessed. Such an action helps us to see our progress. The purpose of measuring school health is not only to identify the present situation. The school's being healthy or unhealthy is an indication of whether teachers are satisfied with their job or not. What is important here is to identify the underlying causes of satisfaction or dissatisfaction (Hoy, Tarter & Kottkamp's, 1991). Hence, answers to the following questions have been sought in this study.

- How do teachers perceive their principal?
- Do they see their principal as a transformative or transactional leader?
- Do they think their organization is healthy or unhealthy?
- How is the behavior of the principal related to teachers' job satisfaction?
- How can the teachers' job satisfaction be related to organizational health?

So far many researchers have studied the relationship between the leadership styles of the principals and teachers' job satisfaction, performance and efficiency (Hipp, 1997; Hipp & Bredeson, 1995; Matteson, Ivancevich & Smith, 1984; Jamal, 1985; Rasmussen, 1996; Balci, 1985; Karip, 1998; Çelik, 1998; Leithwood, 1992; Kirby, Paradise& King, 1992; Bogler, 2001). These studies have excluded the direct and indirect effects of leadership styles and teachers' job satisfaction on schools' organizational health (separate or combined).

There are several reasons nourishing the expectation that leadership styles (transformational and transactional leadership) and teachers' job satisfaction have an impact on the creation of a healthy school environment. Firstly, transformational leaders enhance the quality of in-school relationships by actively participating in the operation of the individual value system of the staff in their institutions. Further, transformational leaders make certain explanations that could relate the identity of the staff with the common identity of school and thus promote the quality of mutual relationships and internal motivation of the staff. (Jung, Chow & Wu,2003). Secondly, transformational leaders encourage their staff by stimulating them intellectually to adopt creative thinking processes, and push them to reconsider the solution of old problems through new techniques (Sosik, Avolio & Kahai, 1997; Hater & Bass 1998).

Much as it is logical to think that leadership styles and teachers' job satisfaction affect school health, there are few experimental studies concerning the nature of this relationship. All these show us that the transformational leadership style of the administrators will create a positive effect upon all the staff working in the school at every level. It may particularly cause an increase in the job satisfaction of the teachers. In other words, transformational leadership may be a triggering factor for higher level job satisfaction. Therefore, the question whether transformational leadership and job satisfaction are effective factors in the establishment of school health is the key question of this study. In other words, this study will be concerned with the issue of how much of the variation of the school health stems from the leadership style of the principal and the job satisfaction of the teachers. This study will thus address the following

questions:

- 1. Are the leadership styles displayed by the school principals of the transformational type or do they reflect transactional type of behavior?
- 2. What sort of relationship is there between the organizational health of the school and the transformational leadership style of the principal?
- 3. What sort of relationship is there between the organizational health of the school and the transactional leadership style of the principal?
- 4. What sort of relationship is there between the job satisfaction of the teachers and the transformational leadership style of the principal?
- 5. What sort of relationship is there between the job satisfaction of the teachers and the transactional leadership style of the principal?
- 6. What sort of relationship is there between the job satisfaction of the teachers and the organizational health of the school?
- 7. Do transformational leadership style and teachers' job satisfaction have a positive effect on the organizational health of the school?

In this study what has particularly been studied is to what extent the variations in the organizational health of the school can be correlated with the principal's leadership style and teachers' job satisfaction.

Theoretical Framework

Transformational and Transactional Leadership

A school administrator is an educational leader who develops a vision for the organizational objectives supported and shared by all the staff in any position, actualizes this vision by sharing it among the staff and thus enhancing students' and teachers' success (Sashkin, 1988). In the late 1970s, when

educational leadership was first used, principals were considered efficient if they administered the school by setting clear expectations, creating a strictly disciplined environment and high standards. Such an understanding of leadership was based on hierarchy and administrators' using their authority over their staff in a strict way (Lashway, 1995). As Leithwood (1992, 1994) has indicated, educational leadership was in accord with these views in 1980s and 1990s. In this way, such a leadership style met the expectations of the public from educational institutions and of the decision makers from the school principal. In the 1990s, however, schools underwent such fundamental changes as curriculum development, new student and teacher roles, modified learning and instruction strategies and employee motivation. These changes brought about another change in the philosophy of educational leadership. However, the response of educational leadership to these changes fell short of requirements. Organizations and researchers put forward very few suggestions to cope with the chaos of the late 1980s. (See for Visionary Leadership Sashkin, 1988; for charismatic leadership Conger, 1989; Conger & Kanungo, 1988; House, 1977 and for transformational models Bass, 1985; Tichy & Devanna, 1986; for facilitative leadership Conley & Goldman, 1994). As a result of these suggestions, while principles were expected to utilize visionary leadership in their organizations, transformational leadership started to be the focus of leadership discussions. However, this issue was disregarded by the educational leaders (Leithwood & Jantzi, 1990).

The first comparison between transformational and transactional leadership was made by James MC Burns, who based his study on Weber's (1947) impressive work on charismatic leadership. Burns (1978) believed that the term charisma had lost its meaning and depicted the followers of transformational leaders as people who gave inspiration to each other in achieving higher morale and motivation levels (p. 20). On the other hand, Burns defined transactional leadership as that where the leader directs or motivates those contributing individually to the process of reaching organizational objectives

by clarifying the roles and task requirements of the followers (Burns, 1978). With these explanations, Burns saw transformational leadership as opposite to transactional leadership. Bernard Bass (1985) corrected this basic misconception in the view of Burns. Bass, in cooperation with Avolio, coined two separate and complimentary approaches by using the "Multifactor Leadership Questionnaire" (MLQ) developed by Avolio.

Applying MLO Factor Analysis to transformational leadership, Bass created four sub-factors of transformational leadership and added the sub-dimensions of transactional leadership like charisma, motivation through talk, intellectual stimulation, individual support and conditional award. According to Bass, charisma is defined in the attitude of the transformational leader such that his followers respect and trust him; that is, they want to be like him. Motivation through talk is a source of morale for the followers of transformational leaders and it promotes a sense of common objectives in the followers, considering their needs and desires. On the other hand, intellectual stimulation is the ability of the leader to motivate his followers to find creative and extraordinary solutions to the problems. Individual support refers to the leader's creating new opportunities for development so that each of his followers can develop themselves. To do this, leaders make an effort to know about their own staff.

Being a sub-factor of transactional leadership, conditional award refers to leaders rewarding or punishing their personnel according to the nature of their behavior. Management by exceptions is to do with those circumstances in which the leader interferes when things go wrong. This factor was later considered as passive and active management (Bass & Avolio 1990). In active management, the leader applies rules to prevent any wrongdoings, records mistakes and focuses on deviations from the standards. However, in passive management, the leader never interferes until the problems get chronic; that is, the leader does not take any action if any mistake occurs.

These sub-factors are considered to be negative in passive

and active leadership (Silins, 1994; Alimo, Metcalfe & Alban, 2001). In addition, Laissez-faire refers to the legal abolition of leadership.

According to the information as to MLQ described above, transactional leaders concentrate on the continuity of effective performance or achieving it, whereas transformational leaders focus on the future and concentrate on visions of energy-stimulating nature. When compared with transactional leadership, transformational leadership is more positively related to the vision themes that are sources for inspiration. The transactional leader, on the other hand, tries to set the agenda, clarify the award and instrumental themes (Bass, 1985; Bryman, 1993; Shamir, 1993).

Shamir, House and Arthur (1993) have stated that the special influence transactional leaders have on the followers can be observed in the followers' attitudes, perceptions and values. Among the personality features of transformational leaders are affective competency and social competency. Such a leadership style is more closely related to a "thinking personality" than to a "feeling personality" (Roush & Atwater, 1992).

Teachers' Job Satisfaction

Today, teachers are expected to find solutions to certain problems of the society and to prepare the individuals for a society in which there is a fast pace of technological development. Teachers trying to fulfill these responsibilities, however, generally work under inappropriate conditions, are devoid of professional development opportunities and earn low salaries. Many teachers, after starting to work, develop a negative attitude toward their profession, their students and even themselves (Schwab, Jackson & Schuler, 1986). As a result of these negative conditions, teachers' job satisfaction declines and after a short time most teachers want to quit teaching (Akçamete, Kaner & Sucuogu, 2001). It is the task of education to provide solutions to these problems thought to be caused by the low satisfaction level of the teachers. At this point, the responsibility of education is related to how teachers feel about their profession and to what extent they

feel satisfied. Thus, the suggestion that "schools must pay more attention to teachers' job satisfaction" is not surprising (Heller, Clay & Perkins, 1993;p. 75.)

The research carried out on the Turkish Educational system has revealed that the teachers working in general high schools do not get adequate satisfaction from their jobs (Balci, 1985; Çelik, 1987; Peknedal, 1988; Özdayi, 1991).

The data obtained in this study shows that the teachers obtain high satisfaction from their jobs in the first five years of their careers but it decreases seriously as the years advance. Teachers' reasons for leaving their profession in the 2004- 2005 academic year were quoted as underpayment and lack of promotion possibilities. Due to these reasons 1431 teachers either retired or left their careers before retirement age in the same academic period (State Statistics Data, 2005).

Reves and Shin (1995) stressed the necessity of job satisfaction for the development of organizational commitment. Increase in job satisfaction increases loyalty to the organization (John and Taylor, 1999). One of the major factors which results in the lower job satisfaction in schools is the administrative style shown by the principals towards the other staff. The leadership styles of the principals have a significant effect upon the teachers. At this point Bailey (1992) found a significant correlation between teachers' perception of the administrative style and their level of job satisfaction. The results of this study once more revealed an important point: the need for a revision of the training programs of school administrative staff. Teachers working in schools desire to work with administrative staff who implement a transformational leadership rather than with those showing a traditional attitude to leadership. Amabile (1998) stated that the leadership style exhibited by principals strongly effects the working medium and therefore the job satisfaction and motivation of the teachers. Similarly there is a strong correlation between a cooperative, motivating attitude of the principals and confidence of teachers towards the principle, commitment to the school and organizational health (Depasquale, 1996; Meade, 1994;

Yakmalian, 1995). In conclusion, the literature survey related to relations between organizational health, leadership styles and job satisfaction showed that job satisfaction may be positively correlated with transformational leadership and organizational health. The direction, power and effectiveness of this correlation may be helpful in the solution of some of the problems present in Turkish high schools today.

Organizational Health

The term organizational health was first proposed by Miles in 1969 to examine the climate of schools' (Tsui & Cheng, 1999). According to Miles, a healthy organization was not only an organization surviving in its environment but also a structure constantly using its abilities to cope with difficulties and surviving in the long run (Miles, 1969). Originally used to explain the continuity of organizational life, the term organizational health was reconsidered by Parson's, Bales and Sils (1953), Hoy and Tarter (1991), and Hoy and Miskel (1991): it is the ability of the organization to successfully adapt to its environment, create solidarity among its members and reach its objectives. As this definition suggests, organizational health is a useful structure to picture the mutual relationships of such human resources at school as teachers, students, management and other staff. To protect such a structure, schools are in need of support by the community in their environment. At the same time, they successfully adapt to their environment and impose the shared values on their staff.

The conceptualization of a school's organizational health may be justified by two reasons. First, school is regarded as a social system where directors, teachers and students play a role. Thus, organizational health should reflect the social interaction between these key agents (Cheng, 1987). Second, it is necessary for a healthy school to be effective in actualizing certain functions. According to Parsons, in a healthy school technical, managerial and institutional levels are in harmony, the school is able to meet its basic needs, and the energy is directed to the school's mission. In addition, in healthy schools students,

teachers, directors and the school environment work through constructive cooperation (Parsons, 1967). Hoy (1991) developed an organizational health inventory (OHI) to measure schools' organizational health. He conceptualized such organizational health in seven dimensions. The reason for this was to represent each of the basic needs of the social system in many organizations (Hoy, 1991: 183).

Being one of these dimensions, institutional integrity refers to a school having a consistent curriculum and being able to cope with destructive efforts by external forces.

- Initial structure refers to the attitude of the principal to work, to his or her responsibility and to success.
- Consideration is the conduct of a principal who is supportive and friendly. The principal is open to suggestions and attentive to the teachers' welfare.
- The principal's influence is his or her ability to influence his or her superiors.
- Resource support refers to a school where adequate class materials and educational tools are available.
- Morale is the sense of trust, passion and friendship amongst teachers.
- Academic concern refers to the school's pressure on students for high but achievable expectations.

As a result, a healthy school is a school which shows strong performance in terms of these seven dimensions (Tsui & Cheng, 1999).

Much of the research into organizational health is based on the pioneering works of Parsons, Bales and Sils (1953), Hoy and Tarter (1991), and Hoy and Miskel (1991). A detailed literature review will clearly reveal that the purpose of research into organizational health is not only to assess what is present but also to identify the underlying reasons leading to a healthy or an unhealthy school.

Testing the relationship between the organizational health

and teachers' commitment, Tsui and Cheng (1999) found that morale, consideration and institutional integrity were related to position, marital status and professional tenure. Such a result supports the assumption that the relationship between a school's organizational health and its teachers' commitment are based on the teachers' personalities (Tsui & Cheng, 1999). Similarly, Cheng (1990), Hoy and Miskel (1991), Owens (1991), and Sergiovanni (1991) found a linear relationship between teachers' perception of the working environment and their commitment, and that when this relationship was of positive character it was thought that teachers' performance and the quality at school would be positively influenced.

The leadership style of the principal is seen as a critical source of organizational health. Studying specifically this subject, Fliegner (1984) measured the effectiveness and health of schools and found them unhealthy. This result was interpreted as due to the inefficiency of the leadership styles (Fliegner, 1984).

Studying different types of schools in terms of organizational health, Akbaba (1997) found the organizational health scores of general high schools to be higher than that of vocational schools and related this to the strong social interaction in general high schools. As a result of the same study, it was found that schools of the same type differed in terms of the perception of school health. For example, the organizational health scores of girls' vocational high schools were found to be higher than those of other vocational schools (Akbaba, 1997).

Method

Participants

Teachers working in Ankara's 46 high schools participated in the research. 630 of the 875 teachers answered the questionnaires (75%). 42% of the teachers who returned the surveys (284) were female, and 55% (346) were male. 12% of the female teachers had been in service for less than 5 years, 37% for 6-10 years, 25% for 11-15 years, 22% for 16-20 years and 4% for more than 20 years. These ratios were 8%, 25%, 26%, 24% and 17% respectively for the male teachers. Among the 46

schools investigated, 13 had female and 33 had male principals. 39 of these principles had been assigned after completing a 6 month training course .The professional seniority of these principles varied between 8 and 17 years. Seven of them had been appointed without having taken any form of specialist course. These people had the longest service in the education field (35 years). 42% of the schools were located in districts of low social economic level, 27% in districts of average socio- economic level, and 31% in districts of high socio-economic level. The sampling process was conducted meticulously so as to achieve the best representation.

Instrument

A Likert-type questionnaire was distributed to 875 teachers in 2004. The participants were asked to answer the questions concerning leadership styles, their school's organizational health, and job satisfaction, considering their present context.

The first section of the questionnaire was about transformational and transactional leadership. This part was adapted from the MLQ (Bass 1985) to Turkish culture. This section consisted of 36 items, the answers of which varied between never 1 and always 5. The participants were asked to answer the items concerning leadership styles categorized according to the four categories of transformational leadership (charisma, motivation through talk, intellectual stimulation and individual support) and the three categories of transactional leadership (Laissez-Faire, conditional award, management by exceptions and management by expectations). The MLQ has been tested in many studies by Bass, one of which was conducted in Fortune magazine with a 256 participant sample (Bass 1985: 225-229). In this study, the coefficient and reliability values for each instrument found were charisma .94, consideration .87, and intellectual stimulation .89 as being the sub-dimensions of transformational leadership; conditional award .83 and management by expectations .70 as being the sub-dimensions of transactional leadership.

At the same time, the MLQ was applied by Bogler (2001) to a 745 participant teacher group working in primary, secondary and high schools in Israel. In that study what was investigated was how teachers perceived their principal's transformational and transactional leadership in their schools in Israel. As a result, the items in the MLQ concerning transformational and transactional leadership were found to be highly reliable (Bogler, 2001). The same result has been achieved by other researchers using the MLQ (T.J Evans 1996; Karip, 1998; King, 1989; Hoover; Petrosko & Schultz, 1991).

The second section of the questionnaire was designed to assess organizational health. The organizational health inventory used in this section was first developed by Hoy in (1991). A secondary school form was developed by Hoy and Tarter in (1997), and Hoy and Sabo in (1998).

The OHI was adapted to the Turkish education system in terms of culture and language. The culturally modified inventory was transformed into a Likert-type questionnaire (Seldom 1, Always 4) and consisted of 6 sub-dimensions and 45 items. The participants were asked to answer the questions concerning these 6 dimensions (academic concern, professional leadership, institutional integrity, principal's influence, resource support, and teachers' commitment). The OHI has been tested in many studies, one of which was by Hoy and Sabo in 1998. The Cronbach α reliability coefficients concerning the 6 dimensions of the inventory varied between .82 and .92.

The OHI was also used by Licata and Harper (2001) in their study "Organizational Health and Robust School Vision". The reliability coefficients of the inventory consisting of 6 dimensions and 33 items varied between .82 and .96. In another study, Korkmaz (2004) applied OHI to teachers working in primary schools. The questionnaire consisting of three sub-dimensions and 35 items explained 74% of the total variance, having a considerably high a value (.96). In many other studies, the OHI has been tested in terms of reliability and validity, producing high results (Hoy, 1991; Licata & Willower, 1978).

The last section of the questionnaire concerning teachers' job satisfaction was taken from Balci's (1985) study "The Job Satisfaction of Education Administrators". The questionnaire, tested in terms of validity and reliability, was important in that it was the first research into job satisfaction in educational organizations in Turkey. Being a five-grade Likert-type instrument (strongly disagree 1, strongly agree 5), the questionnaire consisted of 6 dimensions (job and its quality $\alpha =$.87, payment $\alpha = .76$, development and promotion opportunities α =.93, working conditions α = .89, interpersonal relationships α = .95 and organizational setting $\alpha = .91$.) and 25 items. Balci, studying the factors affecting directors' job satisfaction, found that the participants were dissatisfied. They were highly satisfied with the job and its quality, whereas they were least satisfied with payment. The reliability coefficients varied between .76 and .95. Although the questionnaires had been previously tested by other authors, the factorial structures were retested for this study. To test the reliability of the instrument, it was applied to 55 participants who were randomly selected, and then a Varimax rotation analysis was applied to the data in the SPSS packet program.

After certain modifications on the instrument (for example, clarifying sentences in terms of meaning, crossing out irrelevant items), the questionnaire was tested through 15 teachers and reshaped.

Table 1: The sub-scales and related sample items

 $Transformational\ Leadership$

- He seeks different approaches in solving questions
- He makes me feel honored and happy to work with him
- He allocates his time to help me develop myself
- He considers the things that are good for the group as more important than his own interests
- He treats me in such a way that I respect him in return

Transactional Leadership

- He expresses satisfaction when I do what is expected of me
- He focuses on mistakes, complaints and failures*

- He records and monitors mistakes
- In return for my efforts he helps me
- He refrains from direct involvement when serious problems arise

Organizational Health

- The school is open to public demands
- The school is vulnerable to external pressures*
- The classrooms are equipped with extra materials
- The other students appreciate those who get high marks
- Teachers are enthusiastic about their job

Teachers' Job Satisfaction

- I have a stimulating job
- I find real happiness in my job
- My superiors realize that I am an important person
- In my school all the communication channels are open
- In this organization, a just promotional policy reigns

Results

The Dimensions of Transformational and Transactional Leadership

A Varimax rotation was applied to the 36 items of the MLQ developed by Bass and Avolio in 1990 to see whether the behavioral dimensions could yield the same result as this sample. Factorial analysis created a seven-factor structure. The first factor contained 17 items concerning intellectual stimulation, motivation through talk, and charisma, with varying item loads of .54- .86.

The second factor contained seven items concerning individual support with varying item loads of .51- .75. These items, which are related to the four sub-dimensions of transformational leadership in the MLQ created a two-factor structure in our study. These two factors were combined to form a single scale for transformational leadership. The third factor created four items concerning Laissez-faire, with varying item loads of .64-.75. The fourth factor contained four items concerning management by expectations with item loads of .54-.64. The fifth factor contained two items concerning

 $^{\ ^{*}}$ The scoring of these question items was the reverse of the scoring of the other questions

management by exceptions with varying item loads of .50- .61. The sixth and seventh factors were not included in the analysis as they were found to be irrelevant. The third, fourth and fifth factors were combined to form a single scale for transactional leadership. The distinguishing values of the five factors are 14.24 (factor 1), 3.11 (factor 2), 2.11 (factor 3), 1.67 (factor 4), 1.39 (factor 5), which explained the 62% of the total variance.

The Dimension of Organizational Health

Varimax rotation was applied to the 24 items formed to measure the organizational health of the schools. The factor analysis yielded a five-factor structure. The first factor contained six items concerning professional leadership with varying item loads of .45- .81. The second factor contained five items concerning institutional integrity with varying item loads of .43-.71. The third factor contained three items concerning teacher commitment with varying item loads of .55- .79. The fourth factor contained four items concerning academic concern with varying item loads of .48- .64. The fifth factor contained three items concerning resource support with varying item loads of .54- .75.

The other three items in the scale were not significant in terms of item loads and thus were not included in the analysis. The distinguishing values of the five scales are 6.26 (factor 1), 3.69 (factor 2), 2.38 (factor 3), 1.60 (factor 4), 1.39 (factor 5), which explained the 62% of the total variance.

Table 2: Reliability, Mean and Standard Deviation Values of the Five Scales

Scale	Reliabilitya	Mean	SD
Transformational Leadership (24	0.9536	2.3804 ^b	0.3810
items, n=553 teachers)			
Transactional Leadership (10 items,	0.7374	1.7887 ^b	0.4736
n=556 teachers)			
Organizational Health (21 items,	0.7874	2.4385°	0.4242
n=495 teachers)			
Teacher's Satisfaction (25 items,	0.8953	2.8398 ^d	0.7173
n=543 teachers)			

^a Cronbach's Alpha

^b Rating scale : 0= never 4= always ^c Rating scale : 0= seldom 4= always

d Rating scale: 1= strongly disagree 5= strongly agree

The Dimension of Teachers' Job Satisfaction

Varimax rotation was applied to the 27 items measuring teachers' job satisfaction. The factor analysis yielded a five-factor structure. The first factor contained eight items concerning interpersonal relationships and organizational setting with varying item loads of .49- .83. The second factor contained four items concerning development and promotional opportunities with varying item loads of .59- .74. In addition, an item regarding this dimension (item 21) had a very low distinguishing value and thus not included in the analysis. The third factor contained five items concerning the job and its quality with varying item loads of .55-.76. The fourth factor contained four items concerning working conditions with varying item loads of .47- .57. The fifth factor contained four items concerning payment with varying item loads of .35- .46. An item regarding this dimension was crossed out since it was insignificant. The distinguishing values of the five scales are 8.03 (factor 1), 2.93 (factor 2), 2.43 (factor 3), 1.76 (factor 4), 1.53 (factor 5), which explained the 61% of the total variance.

The findings obtained through factor analysis and the Cronbach Alpha values calculated for each factor were very close to the values obtained in the original study, which is a good indication of the content reliability of these factors.

Table 3: The Pearson Correlation Coefficients among the Scales

Scale	1	2	3	4
1. Teacher's Satisfaction		0.528**(622)	-0.004 (621)	0.554** (623)
2. Transformational Leadership			-0.257** (630)	0.582** (624)
3. Transactional Leadership				0.017 (624)
4. Organizational Health				

Note: Numbers in parentheses are sample sizes. ** p<0.0001

Correlations between the Independent Variables

Table 3 summarizes the Pearson correlation coefficients of all variables concerning the scales of transformational leadership, transactional leadership, school health, and teachers' job satisfaction used in the study. The correlation matrix of the independent variables "transformational leadership, transactional leadership, teachers' job satisfaction" together with the dependent variable "school health" yielded these results.

The Schools' organizational health was significantly related to transformational leadership $\Upsilon = .58$, p<.0001), teachers' job satisfaction $\Upsilon = .55$, p<.0001) and transactional leadership $\Upsilon = .00$, p<.001). At the same time, these correlation coefficients were similar to those obtained by Bogler (2001) in Israel. Another relation among the sub-scales was about the opinions of the teachers concerning their perception of job satisfaction and their perception of their principal as transformational leader $\Upsilon = .53$).

The relations between these variables have shown that the more the teachers perceive their principal as a transformational leader the more their level of job satisfaction increases, and the less their principals exhibit transactional leadership the better school's organizational health gets.

In this study Pearson correlation coefficient and path analysis were employed in order to overcome certain difficulties. There is a problem in the selection of an appropriate analysis unit in leadership studies in schools: there are many teachers and only one principal in each school, all the teachers give answers related to the same principle when they fill in the survey forms. One can not be sure whether the answers given reflect the nature of the mutual relation between the teachers and the principal or are the result of the leadership style of the principal. Since some teachers may be close friends of the principal, they answer the questions in a positive manner. In other words, they may not be quite satisfied with the leadership of the principal. On the other hand, the

teachers criticized by the principal may not think positively about him/her. The best way to solve this problem is to carry out path analysis using 46 schools as the analysis unit.

To test the model in Figure 1, Path Analysis, also known as "structural equality analysis", was used. The purpose of this analysis was to structuralize the cause-effect relationship between

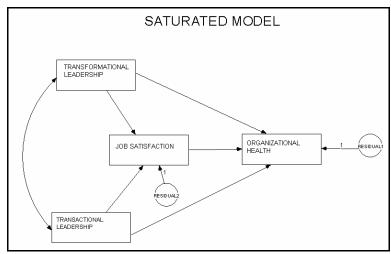


Figure 1: The Conceptual Relationship Between Principals' Leadership Styles, Teachers' Job Satisfaction and Organizational Health

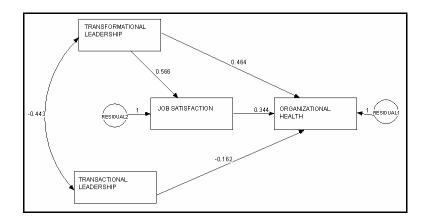


Figure 2: Path Analysis Regarding the Relationship Between Principals' Leadership Styles, Teachers' Job Satisfaction and Organizational Health* p<.05

variables of the models, and thus to make it possible to logically explain the observed correlations (Johnson & Wichern 1982). This method, assuming linear and non-recursive relationships between intermediate variables, allows analysis of the direct and indirect effects of the independent variables "principal's leadership styles and teachers' job satisfaction" on the dependent variable "school health". The second figure shows the test result reported in Figure 1 (Amos 3.6 was used). This model perfectly matches the data.

 X^2 (1.N=636) =1.705, P=0.192 goodness of fit index=0.999, the adjusted goodness of fit index=.987, the difference between root mean square residual = 0.009.

The most striking finding from the path analysis was that the transformational leadership style exhibited by the principal within the school setting strongly affected the teachers' job satisfaction (β =.56, p<.05). The transformational leadership of the principal directly affects the school health (β =.46, p<.05) and through teachers' job satisfaction (β =.47, p<.05) it indirectly affects the school health. In addition, teachers' job satisfaction directly affects the schools' organizational health (β =.34, p<.05).

Principal's transactional leadership negatively affects school health (β =.-16, p<.005), which explains 64% of the total variance.

As a result of the analysis, it can be stated that the more the teachers perceive their principal as a transformational leader and the less they perceive him as a transactional leader, the more their level of job satisfaction increases and thus the school's organizational health improves.

Discussion

The findings of the study have shown that transactional leadership style and teachers' job satisfaction may both be factors

affecting school health.

The most interesting finding of the study is that transformational leadership has a profound impact on teachers' job satisfaction. That transformational leaders actively participate in the formation of the individual value system of their staff promotes the in-organization relationships up to the top level. Furthermore, these leaders have a strong influence on their staff as they create a common aim, facilitate communication and manage education in the school (Cruz, 1995; Eblen, 1987; Jung, Chow & Wu, 2003). This may enhance the internal motivation of the staff and the quality of interpersonal relationships. This finding is similar to the findings obtained by researchers testing the relationship between the principal's transformational leadership behavior and teachers' job satisfaction (Houseknecht, 1990; Marschilok, 1993; Everett, 1991). This finding is a reply to the 4th. sub-question. Teachers' job satisfaction as a variable serves as a moderating variable between a principal's leadership style and the school's organizational health. In this study, teachers reported that when their job allowed personal development, when they felt happy to work in such an organizational environment, when they established good relationships between their colleagues and superiors, and when they were allowed to take part in decision making process as to the practices in the school, they gained high satisfaction out of their job. That the teachers expressed their feelings about their job would be a proof of the increase in their organizational commitment. Further, as a result of transformational leadership practices, the job satisfaction of the staff increases, which indirectly enhances organizational health, since organizational health, as stated by Hoy, Tarter and Kottkamp's (1991), is a useful structure to depict the mutual interpersonal relationships between teachers, students, and directors in the school. In other words, in healthy organizations, teachers like the school and the students, and they like each other. They consider the principal supportive in improving education, and trust the principal as a sensitive leader in meeting their social and emotional needs.

Another finding obtained through this study is that

transformational leadership has a positive effect on organizational health, which is an expected result as transformational leadership starts with personal development and helping others develop themselves and continues with guiding the others. On the other hand, the staff is sure that they have the equipment and resources necessary for their needs.

Transformational leadership with these characteristics has a significant effect on organizational development. The results of the studies by Howel and Avolio (1993), Hatel and Bass (1988) support this finding. In the broadest sense of the word, leaders are the most important source affecting organizational culture (Schein, 1992). An organizational climate supporting creative efforts and facilitating the promotion of learning along with a leader creating such a culture can enhance organizational health to a large extent (Yukl, 2001).

Transformational leadership is a routine and normal type of conduct rather than a planned action. It is an already-existent behavior pattern rather than something acquired later. That is why Roush and Atwater (1992) explain that transformational leaders are closer to the "feeling personality style" than the "thinking personality style".

Considering these aspects, transformational leadership is a desired leadership style in contrast to transactional leadership. Another finding of the study supports proposing that there is a negative relationship between transactional leadership and a school's organizational health. This finding is a reply to the third sub-problem. In other words, transactional leaders may decrease organizational health to a great extent (For similar results see David, 1990; Marschilok, 1993; Cruz, 1995; Ekvall, 1991; Ekvall & Arvonen 1991; Bogler, 2001). The teachers working in a school where transactional leadership is applied are possibly committed to bureaucracy. They avoid making mistakes and focus on existing or prospective problems. In this way, the relationship among the staff weakens and commitment to the school's vision declines.

Conclusions

The findings of the study have shown that teachers prefer the principal to have a transformational leadership style than a transactional leadership style, which is not surprising, for a transformational leadership style seems to allow such practices as understanding, tolerance, motivation, self-realization, which teachers have been longing for. Transformational leaders act as a savior for those teachers, many of whom may have come to point of quitting their job. Teachers, thanks to this leadership style, start to like their profession and become motivated to be committed to their individual objectives. This leadership style, having such a profound effect on teachers' job satisfaction, has made us direct our attention to the principal. It is obvious that school principals must be aware of how strongly their role and behavior affect teachers' job satisfaction and school health. In this way, principals can help promote positive attitudes in teachers toward their profession. As a result, teachers with a high level of job satisfaction and working in a healthy atmosphere will work more enthusiastically and be more helpful to their students.

Furthermore, the ties between the students and teachers will be stronger while the school starts to move faster to achieve its vision. Students' success will improve in a school which has a healthy relationship with its environment. That is why this study may be illuminating in the assessment of the factors affecting students' success.

The results obtained through this study may well be used by top decision makers, policy developers, supervisors, and at the local level the principals. Leadership styles, which have such a strong effect on teachers' job satisfaction and schools' organizational health, should be given more importance in educational programs aiming to train school directors.

Future studies regarding organizational health and related factors may more closely examine transformational leadership and the factors concerning job satisfaction.

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